

Acknowledgments

We gratefully acknowledge the contributions of the many cooperating landowners and land-managing agencies that support Illinois' CWD Management Program. Without your assistance, the program could not exist. A special thanks also goes to the thousands of Illinois deer hunters who have provided tissue samples and location information for CWD testing, allowing us to monitor disease prevalence and distribution.

For more information about CWD in Illinois, including our complete annual reports, visit <http://dnr.state.il.us/cwd/>

Illinois Department of Natural Resources
Division of Wildlife Resources

Managing, protecting and sustaining
Illinois' natural resources

2011-2012 Chronic Wasting Disease Surveillance and Management Annual Summary



Division of Wildlife Resources

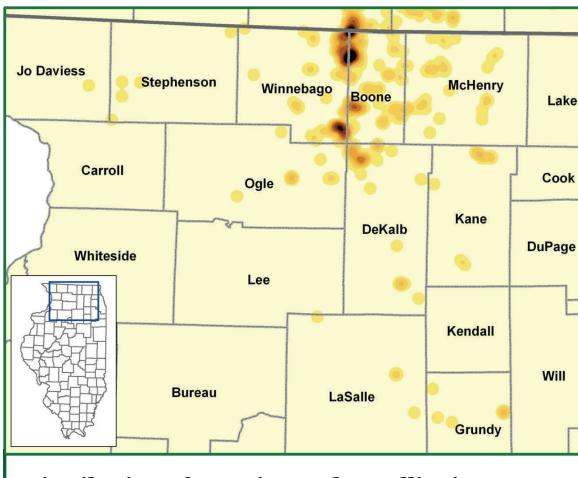


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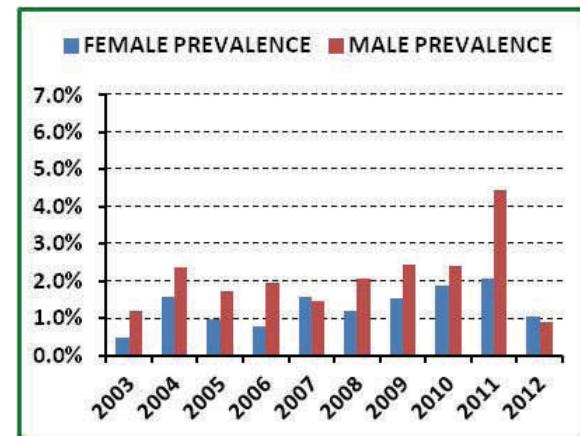
Patterns Over Time and Space: Illinois Chronic Wasting Disease (CWD) During 2002-2012

In the past decade, Illinois Department of Natural Resources (IDNR) personnel sampled more than 65,000 wild deer, and identified 372 individual deer infected with CWD. Distribution of the disease is very clumped on the landscape, with most cases occurring in a central core area along the Winnebago-Boone county line where CWD was first found. Other areas with significant disease typically contain good winter habitat for deer and high deer densities resulting from a lack of deer harvest during hunting seasons. Throughout the known Illinois CWD range, the observed rate of disease generally becomes progressively lower at greater distances from the core.

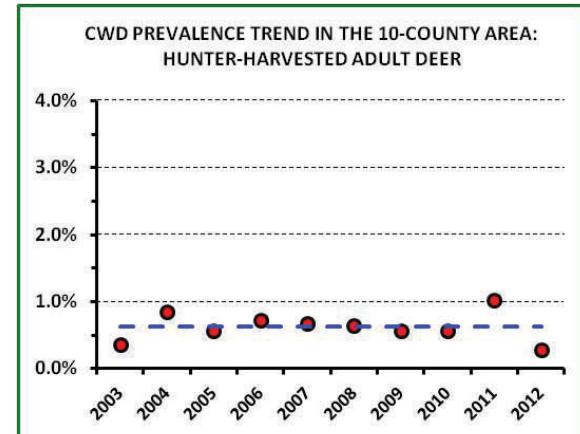


CWD positive deer have been identified from 10 northern Illinois counties, but 90% of cases (335) occurred in the original four CWD counties (Winnebago, Boone, McHenry, and DeKalb). More than two-thirds of cases came from Boone or Winnebago counties, with most of those clustered near their shared county line.

During ten years of testing hunter-harvested deer (2002-2012) in the four original CWD counties (Winnebago, Boone, McHenry, and DeKalb), the observed rates of disease have been almost twice as high for adult male deer (2.0% CWD prevalence) as for female deer (1.3% CWD prevalence).



Illinois' CWD management approach has been effective, and no evidence of increasing prevalence rates has been observed in the 10-county range of CWD during our ten-year history of the disease, averaging 0.62%.

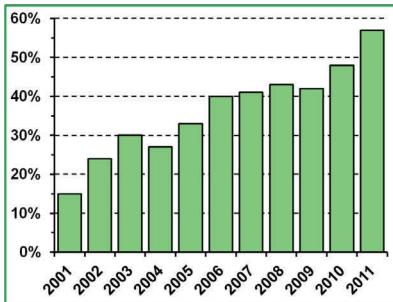


Why be concerned about CWD?

Chronic wasting disease was first observed in the 1960s in captive deer in Colorado, but not identified as a fatal “spongiform encephalopathy” (disease that causes formation of sponge-like holes in the brain tissue) until the late 1970s. The first documented case of CWD in wild animals was found in 1981 in a Colorado elk, and the disease was later found in free-roaming elk, mule deer, and white-tailed deer in both Colorado and Wyoming. Since that time, CWD has spread into wild deer/elk populations in 17 states and two Canadian provinces.

There is no treatment or cure for CWD, so it is always fatal. Although it seems to affect only members of the deer family (various deer, elk, and moose), there is still much to be learned about CWD. While not known to be a human health threat, disease experts caution against eating deer known to be infected. However, it is a very real and serious threat to deer throughout North America.

CWD is not a “sensational” disease that spreads rapidly through deer populations and results in high numbers of dead deer in a short period of time. After infection, it may be a year or more before a deer shows outward signs of illness. At that point, death normally occurs within a few weeks or months. As a result, outbreaks may not attract a great deal of attention, and people may be lulled into the belief that CWD is not a significant threat. However, experience in other states demonstrates that over the course of several years, CWD continues to spread and increase unchecked until it may threaten the viability of deer populations.



Source: Wyoming Game and Fish Dept. 2011 Big Game Report

Illinois' approach to CWD management

Biologists believe that the dynamics of a CWD outbreak are largely controlled by a mix of two types of disease transmission: (1) direct transmission by contact between individuals, and (2) indirect transmission from a contaminated environment [such as from body waste, etc.] to an individual. In the early stages of an outbreak, most transmission likely occurs between individuals, particularly between individuals that belong to the same social group. When disease becomes more firmly established, and when prevalence rates increase in an area, the level of environmental contamination will increase and indirect transmission will become a more significant contributor in the outbreak. This is why it is important to manage CWD at an early stage, because control becomes more difficult with the passage of time.



In order to manage deer densities at the county level, IDNR has liberalized hunting regulations in the northern Illinois CWD area, using virtually unlimited gun permit quotas, a special CWD management hunting season with reduced-price permits, and more days of hunting. These changes have not resulted in increased levels of deer harvest.

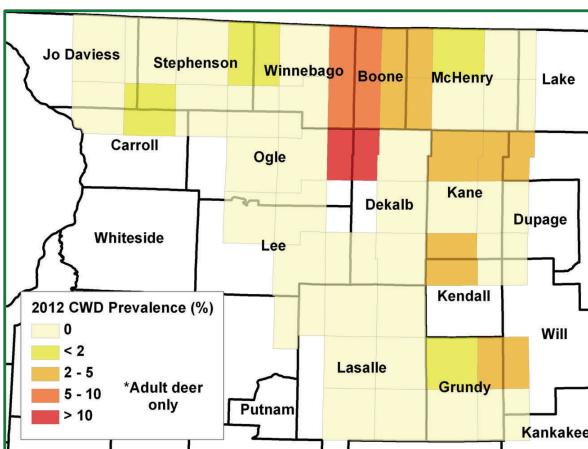
Illinois DNR supplements hunter harvest with agency sharpshooting after the hunting seasons to allow a focused removal of deer from areas in which CWD is known to occur. Sharpshooting occurs on both private and public property through a network of cooperating landowners with a concern for natural resource management. This approach is the foundation of our management success. Addressing disease control in this fashion at the local level actually allows us to more effectively fight CWD without drastically reducing deer populations throughout the entire county, as would be the case if we were forced to use hunting as the only tool for disease control.

Our goal is to suppress CWD prevalence rates so that they remain very low, and to slow the spread of the disease to the remainder of the state. We can do this by reducing deer densities in specific CWD areas and maintaining those herds at low levels. Our approach to CWD management impacts CWD dynamics by increasing removal of CWD-positive deer from the population, by reducing contact rates between sick and susceptible individuals, and by reducing the rate of environmental contamination.

2011-12 CWD Surveillance Results

We collected 8,203 tissue samples for CWD testing this past year, and received valid test results from 8,175 of them. We found only 36 CWD-positive deer in these samples, from eight counties: Boone (5), DeKalb (5), Grundy (5), Kane (7), McHenry (3), Ogle (2), Stephenson (2), and Winnebago (7). Most samples tested were from hunter-harvested deer (6,726 usable samples, 82% of total), but sharpshooting activities accounted for most of the positive deer identified (25 positives, 69% of total). Most positive deer were found in areas already known to have CWD; the only significant exception was an expansion into eastern Grundy County where a cluster of positives was found about 10 miles east of existing positive findings.

Illinois' management efforts have resulted in disease prevalence rates that are both low and stable, in contrast to disease trends observed in other states (see “Patterns Over Time and Space”, other page). Most of the known 10-county CWD area has little to no disease showing up in tested deer. However, disease distribution is very patchy, and there remain “hot spots” with much higher disease prevalence than the norm. Highest local prevalence rates were found this past year along the Winnebago-Boone county line, and to the south into NW DeKalb County/NE Ogle County (see map below). Although prevalence rates have declined the past few years in the northern part of that area (north of Rockford; Rockton/Roscoe area, etc.), prevalence rates to the south in SE Winnebago County and NW DeKalb County seem to be increasing and remain a concern. This is due to lack of land access for agency disease management and deer densities that remain above desirable levels. Concerned, cooperating landowners are the key to management, and in the absence of that, our efforts cannot be successful.



2011-12 CWD Management/Sharpshooting

In the 10-county CWD area, hunters harvested 14,154 deer during all 2011-12 seasons, down slightly from 14,808 in the previous year. In the original four CWD counties (Boone, Winnebago, McHenry, & DeKalb), hunter harvest stood at 2,635, also down slightly from 2,730 the previous year. Peak harvest years occurred in 2007 in the 10-county area (16,514), and in 2005 in the original four counties (3,692). Although recreational harvest of deer in CWD counties has not increased measurably in response to more liberal regulations intended for disease management, hunting remains an invaluable tool for managing deer populations at the county scale and for providing large numbers of samples for surveillance testing. Those test results are the most comprehensive data available for tracking CWD distribution across the landscape.

After the close of deer hunting seasons in January, trained agency sharpshooters began culling deer from populations in specific areas known to have CWD, and particularly those areas where disease rates and/or deer densities remained high. In some cases the sharpshooting was intended primarily to gather additional surveillance information (e.g., in new “spark” areas where CWD was recently found), while in other areas the goal was to manage the disease by reducing deer densities and removing CWD-positive deer (e.g., in areas where CWD was clearly established). IDNR sharpshooters removed just over 700 deer, of which 23 were CWD-positive. An additional 2 positive deer were taken by Winnebago County Forest Preserve District sharpshooters in SE Winnebago County, working under authority of a Deer Population Control Permit. From all sources, sharpshooters removed 779 deer from sites in 117 different sections of the CWD-affected area, averaging 6.7 deer culled per square mile in those sections.

IDNR's sharpshooting program has proven to be an essential component of the CWD control strategy. Because agency sharpshooters can be directed to specific locations, removal efforts are focused only where the disease is present and where deer culling is most needed. In 2011-2012, deer removed by agency sharpshooters were 15 times more likely to be positive for CWD than hunter-harvested deer in those same counties, specifically because sharpshooting only occurred where CWD is known to exist. This difference in removal efficiency makes sharpshooting for disease control a very effective tool.